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Sally M. Reis
University of Connecticut

Terry W. Neu
Sacred Heart University

Joan M. McGuire
University of Connecticut

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SALLY M. REIS
University of Connecticut
TERRY W. NEU
Sacred Heart University
JOAN M. MCGUIRE
University of Connecticut

ABSTRACT: *We used qualitative methods to study 12 young people with learning disabilities who were successful at the college level. The participants reported negative school experiences, verified by their parents and school records, such as social problems, difficulty with teachers, and frustration with certain academic areas. The interaction of their high abilities and their learning disabilities produced a number of negative consequences since their talents were not usually addressed by the school system they attended. However, despite these experiences, participants were able to integrate specific personal traits and special compensation strategies and environmental modifications to succeed in a challenging university setting.*

Little research has been conducted on gifted students with learning disabilities, although Davis and Rimm (1985) estimated that there are somewhere between 120,000 and 180,000 gifted students with disabilities in American schools. Prater and Minner (1986) suggested that the majority of these students have learning disabilities. Minner (1990) found that classroom teachers, including teachers of gifted students, "may hold some rather stereotypical notions about learning disabled and/or gifted students which, in turn, may cause them not even to consider such children in a program for gifted youngsters" (p. 38). Whitmore and Maker (1985) summarized their analysis of this population in this way:

> Intellectually gifted individuals with specific learning disabilities are the most misjudged, misunderstood, and neglected segment of the student population and the community. Teachers, counselors, and others are inclined to overlook signs of intellectual giftedness and to focus attention on such deficits as poor spelling, reading, and writing. Expectations for academic achievement generally are inaccurate—either too high and unrealistically positive or too low and discouraging of high aspirations. It is not uncommon for gifted students with learning disabilities to be told that college study is

inappropriate for them, that professional careers will be unattainable, and that jobs requiring only mechanical or physical abilities are more fitting to their abilities. Without equal opportunity to try, these individuals may be denied access to appropriate educational and professional career opportunities. (p. 204-205)

Although little research exists, many articles and books have been published about gifted students with learning disabilities (LD). Much of what is written about this population is descriptive, but in one database study, Baum and Owen (1988) found that gifted students with learning disabilities have unique characteristics related to persistence and individual interests and possess lower academic self-efficacy than their peers who are not identified as gifted with learning disabilities. Self-efficacy, according to Bandura (1986), is the self-perception that a person can organize and carry out some action. Baum and Owen further found that 36% of the students in their study who were identified as possessing a learning disability simultaneously demonstrated behaviors associated with giftedness such as advanced achievement, high levels of task commitment, and creativity (Renzulli, 1978; 1986). In a more recent study, Olenchak investigated the effects of the use of a "highly structured, personally tailored enrichment program" (Olenchak, 1995, p. 385) on the attitudes, self-concepts, and creative productivity of 108 elementary students who are gifted/LD. After participating in a year-long program based on The Schoolwide Enrichment Model (Renzulli, 1994; Renzulli & Reis, 1985), students demonstrated significant positive results relative to attitudes toward school. Approximately 25% of the students in this study initiated independent or small group studies, known as Type III investigations (Renzulli, 1977). Students who participated in the enrichment program, which included an organized, regular sequence of enrichment experiences, demonstrated statistically significant gains in self-concept between the pretest and posttest administration of the Piers-Harris Children's Self-Concept Scale (Piers, 1984).

The Interaction of Giftedness and Learning Disabilities

Educational research has expanded in recent years with the study of various special populations, and new theories of intelligence (Gardner, 1983; Sternberg, 1981) revealed that the potentiality of some students may not be measured accurately by current measurement instruments. High ability students with learning difficulties have been studied for many years. In 1937, Samuel Orton found wide ranges of intelligence among nonreaders. His extensive work with a specific reading and writing disability known as dyslexia, indicated that many high ability students had learning problems. Some of the nonachieving high IQ students in Terman and Oden's (1947) study exhibited feelings of inferiority, an inability to persevere in the accomplishment of goals, and a general lack of self-confidence. According to current theorists and researchers, these characteristics are common among high-ability students with learning disabilities (Baum, Owen, & Dixon, 1991; Daniels, 1983; Whitmore & Maker, 1985).

Specific research concerning high-ability students with learning disabilities begins with the search for gifted students with disabilities. Following the passage of P. L. 94-142, the expanded emphasis on the education of students with disabling conditions created an interest in students who were gifted and demonstrated learning disabilities. Hokanson and Jospe (1976) found that among all disabling conditions, the largest population of high-ability students were identified as having learning disabilities. Project SEARCH (Hokanson & Jospe, 1976) focused on the identification of high cognitive ability in students with disabling conditions. In this study, Hokanson and Jospe learned that high-ability students with learning disabilities demonstrated creative ability, as identified by teachers or through products. These students were identified as having specific learning disabilities and only considered for educational services to remediate their disabilities.

Two years after the passage of P.L. 94-142, Maker (1977) examined the strengths and weaknesses of gifted students with disabling conditions and provided initial suggestions for programs and services for gifted students with disabling conditions. Maker (1977) expressed concerns about the

difficulty of identifying this population, specifically the inflexibility of reliance on IQ score cut offs. The existence of this population was further supported when Educational Resources Information Center (ERIC) listed the heading "gifted handicapped" in their national retrieval system and when The Council for Exceptional Children (CEC) held two major conferences on this special population.

Case studies, which continued to appear in the literature, questioned the possibilities of the co-existence of giftedness and learning disabilities (Meisgier, Meisgier, & Werblo, 1978). Mauser (1981) found 2.3% of 5,000 identified students with LD had an IQ of over 120. The scores of three groups of students (gifted students, students with learning disabilities, and gifted students with learning disabilities) on the WISC-R were compared (Schiff, Kaufman, & Kaufman, 1981), which revealed the discrepancies between verbal and performance scores of gifted LD students. This study is consistently referenced in all later work on this topic. However, the conclusions drawn from the discrepancies on WISC-R subtests fueled the debate (Brown & Yakimowski, 1987; Silverman, 1989). The current consensus maintains that the discrepancies are evident, but the isolation of certain subtests as a sole means to identify gifted students with learning disabilities is inappropriate (Baum, Owen, & Dixon, 1991; Hansford, Whitmore, Kraynak, & Wingenbach, 1987; Silverman, 1989).

Research on high-ability students with learning disabilities is difficult because of problems in defining each population. The fields of gifted education and education of students with learning disabilities have long been separated by their own definitions for the population to be served, as well as by their separate professional organizations, journals, and recommended educational practices. Practitioners in both fields indicated that their respective federal definitions are inadequate for the identification of this population (Boodoo, Bradley, Frontera, Pitts, & Wright, 1989; Renzulli, 1978; Taylor, 1989; Vaughn, 1989; Ysseldyke & Algozzine, 1983).

METHOD

Qualitative case study methodology was used in this study to investigate participants' perceptions and experiences which are in turn related to the individual's external behavior, in this instance, overcoming the obstacle of the learning disability. Accordingly, the individual's perceptions are of primary importance in a study of this nature. In order to obtain the most accurate image of the participants' experiences and perceptions, open-ended questionnaires and in-depth interviews were used to explore the participants' and their parents' experiences. The case study approach has been suggested by Miles and Huberman (1994) and Yin (1989) as an appropriate methodology for the in-depth study of a small number of cases in order to make analytical generalizations.

Sample

Twelve currently enrolled college or university students or recent graduates identified as having a learning disability either in elementary or secondary school, or at their university, comprised the sample for this research (see Table 1). Participants in this study were identified as having a high IQ in elementary or secondary school, but were usually not identified as gifted and included in the district gifted program. Participants came from 12 different school districts in several states, but in each district similar methods and tests were used to identify students with learning disabilities.

The participants in the study were also screened for specific learning disabilities before being placed in the University Program for Students with Learning Disabilities (UPLD). The university where the research was conducted has a set of guidelines regarding appropriate documentation of a specific learning disability (McGuire, Anderson, & Shaw, 1992). Testing that verifies the existence of a learning disability must be current, comprehensive, and conducted by professionals qualified to diagnose LD. The operational definition proposed by Shaw, Cullen, McGuire, and Brinckerhoff (1995) serves as the framework for reviewing documentation to determine its validity, and students are required to submit school records including individualized education pro-

TABLE 1
Subject Demographic Information

	Demographics			
Subject	*Age*	*Sex*	*Semester*	*University Program*
Arthur	21	Male	7	Behavioral Psychology
Colin	19	Male	4	Electrical Engineering and Computer Science
Diane	45	Female	Graduate	Ph.D. in Special Education
Evan	21	Male	7	Political Science to Prelaw
Fred	25	Male	B.A.+	Teacher Certification
Forrest	20	Male	4	Education, English
Jake	21	Male	4	Engineering
Joe	20	Male	2	Physics
Kate	20	Female	4	Liberal Arts
Mike	21	Male	3	Liberal Arts
Martin	19	Male	1	Preallied Health
Peggy	20	Female	4	Music

grams (IEPs). Information such as IQ and/or achievement tests, outstanding performance in one or more academic areas, teacher nomination, academic grades, and product information from an academic portfolio was used to document both the labels of giftedness and the learning disability. A team of university professors working in the UPLD and in The National Research Center on the Gifted and Talented were involved in the sample selection. Ten of the 12 participants were currently involved in the UPLD program at a major state university.

Data Collection

Multiple viewpoints on a phenomenon or triangulation allow greater accuracy of interpretation than any of the viewpoints or data sources considered individually (Guba, 1978; Jick, 1983; Van Maanan, 1983). This cross-validation can be achieved by "between-methods" triangulation in which two or more methods of data collection are used. To ensure the highest degree of accuracy possible, data for this study were collected using three methods: records and testing information, written responses to an open-ended questionnaire, and in-depth interviews conducted with each participant by two of the researchers during a period of 6 months. One or both parents was also interviewed by one of the researchers. Records and testing information included a thick collection of testing and school documents from elementary, secondary school, and college, as well as extensive testing and biographical data from the UPLD.

The number of interviews conducted was determined when data saturation was reached. Most participants were interviewed two or three times and the interviews usually lasted between 2 and 3 hr. Data saturation occurs when the subject can only provide information which has become redundant and does not offer useful reinforcement of information previously collected

(Spradley, 1979). The open-ended questionnaire served as a preliminary source of issues to be investigated further during the interviews as well as an additional source of information.

Prior to the initial interview, each subject was provided with a biographical questionnaire and written information about the study and his or her anticipated role in it. Parents and/or teachers were asked to complete a brief written summary of their perceptions of each subject's academic history and the effects of their learning disability and label of giftedness. Each interview session was used to clarify, verify, and expand upon the subject's responses. All interviews were tape-recorded and transcribed and the field notes and observations made by the researchers at the time of the interviews were added to the transcriptions. Interviews and other data collection procedures followed guidelines suggested by Spradley (1979), Strauss (1987), and Strauss and Corbin (1990).

Data Analysis

Data analysis was conducted using techniques designed by Strauss (1987) and Strauss and Corbin (1990). As suggested by these researchers, data analysis coincided with data collection and affected the collection of additional data. Data analysis techniques included the use of a coding paradigm described by Strauss (1987) and Strauss and Corbin (1990) as well as coding suggested by the same researchers including three levels: open coding, axial coding, and selective coding. This coding paradigm results in the formulation of a core category or categories of results.

RESULTS

The findings in this study revolve around the core categories for both participants and parents. Two core categories were found for participants: negative experiences in school and the integration of personal traits; environmental and learned strategies necessary to succeed in school. Results are reported by core category in Table 2 which provides a summary of axial codes within each of the major core categories.

Negative School Experiences

All of the participants recalled negative, and in many cases painful, memories of situations that had occurred specifically because of the combination of their high abilities and their learning disabilities during their elementary and secondary school years. It is important to note that these negative school experiences occurred within the context of many positive outside-of-school experiences providing participants of this study with an opportunity to distinguish between positive life experiences and negative school experiences. All of the participants in this study had positive out-of-school experiences that enabled them to survive and even constructively adapt their negative school experiences, resulting in positive personal attitudes that may have enabled them to succeed later. Many of these students excelled in athletics or sports; many had hobbies or passionate interests outside of school; many had nonverbal strengths that were not recognized, rewarded, or nurtured in the schools they attended that emphasized reading, writing, and verbal skills. For many of these students, the discussion of these school memories was troubling, and several indicated that they tried never "to think about what happened to them in school." In some cases, they admitted to "blocking out" memories of painful events that they would rather forget, but each was able to "dredge up" these incidents during the course of the interviews. As Joe eloquently summarized, "I still have a lot of emotion about it. I had a lot of mistreatment. It [this interview] conjures up memories of things that I don't like to meet."

It should be noted that some of the negative school experiences that these students encountered were quite harsh, including: repeated punishment for not completing work on time, retention (repetition) of a grade, placement in a self-contained special education class in which the majority of students were developmentally delayed or had been identified with mental retardation, and cruel treatment by peers and teachers. In fact, if these and other school experiences were not related over and over by many respondents, one might consider them to be rare, almost accidental happenings. But they were not rare, and indeed, the negative school experiences described

TABLE 2
Core Categories

Core Category One: Negative School Experiences	*Participants*
Late identification of a learning disabililty	Mike: Once I was identified, I felt like I had to prove something. So if you have any records of my grades, you'll see the sophomore year when I found out, my grades were poor, but that in my junior and senior year after I was identified, my grades improved.
Self-contained special education class	Joe: Yes, it was special; it was entirely a closed classroom. There were 11 of us. I think 4 or 5 were disciplinary problems. Some had Down syndrome and the rest of us were learning disabled or had other sorts of problems.
Retention	Diane: I stayed back in 2nd grade--So now, I was both bigger and dumber.
Negative interaction with certain teachers	Arthur: Some of my teachers were awful to me. I remember one English teacher. To this day, I hate her. She would just have the idea that if I couldn't do it, if I couldn't get an essay exam done in the time, then I just didn't deserve extra time.
Problems with peers	Fred: I believe I didn't have friends because I was different, because I would say things that were not right. I might ... I didn't think the way most kids thought.
Tracked classes and lack of effort in school	Martin: In 7th grade, I was in English level three ... they only require so much. They only give you so much of a workload, but in a level one class, they give you so much more of a workload. I wasn't pushed to excel, or do better, or even try to achieve at higher levels. So in 11th grade I was put in English one, and I learned to work.
Difficulty in reading and writing	Kate: My learning disability is language oriented. I can't spell. I even have a hard time reading. I have a very hard time sounding out my words. Written expressions, I am very bad. I have a very hard time getting my thoughts down to paper.
Variability of special education (LD) programs	Colin: I tutored other people that were in my [LD resource room] classes and they helped me. It was sort of a mutual help type thing. I was getting mad because the LD teacher didn't help, so I helped one girl there in my math class through math and she helped me do English.
Difficulty in reconciling high abilities and learning disabilities	Joe: I was I think in 5th or 6th grade when I was given an IQ test, and they found my IQ as eligible for the gifted and talented program. Then they gave me a test they used for placement in the program, and they told me I didn't make it but not to feel bad, because learning disabled [persons] usually score about 15% lower than normal people, so I probably would have made it if I had not been learning disabled.

TABLE 2 *(Continued)*
Core Categories

Core Category Two: Integration of Personal Traits	*Participants*
Compensation strategies	Peggy: I learned to compensate for some of my learning problems but for others, I was still working it out. I knew I had learning disabilities. I knew that was why I couldn't do things the same way other people did them, but I didn't necessarily know how to work it out.
Learning strategies	Evan: If I have a list of terms or subcategories to use, I usually use mnemonics. Using the first letter of each one and make up a little saying or something like that or see if it spells half a word, I'll use that.
Executive functions	Arthur: Well, I'm better at planning. If you want to go over the major things that enabled me to improve my grades at school, there are untimed test times for the testing accommodations. There was the planning and organizing. I now carry a calendar around and I go through all my syllabi and plan out when the exams are and what reading has to be done.
Parental support	Diane: My mom always said that I could do anything—I would just have to figure out a way (my way) that I could do it.
Participation in a University Learning Disability Program (UPLD)	Evan: Last year I went [to the UPLD] often. I'd come in with a problem. They told me at the program that I moved very quickly. I started out with major problems and through goals and goal planning, working with the specialist, I got through it in about a year and a half. I went in twice a week for an hour. I'd always have problems with my homework and things that I couldn't figure out, and I always had nonacademic problems. I learned how to use other resources for academic problems, like if I couldn't figure out a math problem, I learned where to get a math tutor.
Self-perceived strength and future aspirations	Martin: I was always the worker in my family ... I even consider myself now, and complain sometimes about it, but I was always the worker. I always did the gardening, or the landscaping, or the vacuuming, or the dishes.

were remembered by every participant in this study.

Late Identification of a Learning Disability. The majority of the participants were not identified as having a learning disability until middle school, high school, or college even though most were referred by elementary teachers or parents for testing or various types of assistance because of learning difficulties. These problems were very evident in these early grades, although most students who were referred were not identified as having a learning disability until later in school.

Self-Contained Special Education Class. Several of the participants were placed in self-contained special education classes that both they and their parents perceived were primarily intended for students with mental retardation and students with emotional and behavioral disorders. This experience was troubling for some of these students and confusing for others. Joe, for instance, indicated that the experience was degrading, and he admitted that he had "blocked out that part of his life." Joe's experience differed from Diane's, who was also placed in a self-contained special education classroom. Diane remarked:

> I believed I was just plain dumb. What really clinched my believing this happened between 6th and 7th grade. I remember being so excited about going to junior high school because it was in a different building with other kids. I was really psyched to do this, and they started to test me, and when I got to the 7th grade they had put me in a self-contained room for mentally retarded kids. And I was really upset about that. After about 2 weeks, I thought this was the greatest thing that ever happened to me, because I was like the star student, and I got to go around and help all the other kids, and I got the best marks. Then they figured they had done all the testing wrong and everything, and they called my folks in, and I remember my dad getting really upset. They said, "Gee, she's got a really high IQ." And so they moved me back to a regular class.

Peggy, who was placed in a self-contained class, believed that no plans were ever made for her and reflected that she never understood the purposes of the special education intervention.

> I never understood what they (the school system and teachers) were doing. They sent me to special education classes but they just said, you are going to do this and they did not really say what they were trying to do with the classes. I don't remember a lot about the classes. I worked on a computer and did some reading comprehension work. There were mentally retarded students there, too. . . . They would flash letters on a screen and I would have to pick out a letter and say how many times I had seen it.

Retention. Half of the participants in this study were retained and had to repeat a grade. Repetition usually occurred because reading or writing skills were not mastered or, in some cases, behavioral problems developed as a result of frustrations faced by the participants. These problems were indicated in interviews with parents and participants as well as in school records retained by parents. Some participants were angry about the experience, believing their retention was caused by teachers not recognizing their learning disability, and some accepted what happened with seeming complacency. When asked about her reactions to staying back in 2nd grade, Diane remembered anger and resentment.

> Diane: I didn't do anything. I just sat back because I was so angry.
>
> Researcher: This was your second year in 2nd grade?
>
> Diane: Right. I didn't do anything. It was like I sat like this, and when they asked me a question, it was like, "You think I am dumb? I will show you how dumb I am."

Negative Interaction with Certain Teachers. All of the participants recalled negative experiences with some of their teachers that were specifically related to the interaction of their abilities and their learning disabilities. All could specifically remember at least one teacher, and the majority could remember more than one teacher who had been a negative influence in their schooling. Some teachers denied students the right to special education services guaranteed to them because of their learning disabilities. Most incidents involved teachers who told the partici-

pants in this study that they were lazy and could achieve if they worked harder.

This theme of lowered self-concept occurred repeatedly for many of the participants. Because the majority of the participants were not identified as having a learning disability until they attended secondary school, they spent years in elementary school being told they were lazy, and that they could achieve if they worked harder. These admonishments sometimes resulted in lower self-concepts and a lack of self-confidence about their own abilities.

Problems With Peers. Most of the respondents cited examples of problems with their peers that almost always began in the elementary grades and continued throughout school. Peggy explained that by 4th grade the kids had picked up on the fact that she couldn't do her work.

> They made up songs about me. At the end of doing all of the times tables, you had to take a thing called "The Review." It was flash cards, and it mixed up all the different times tables, and you had to do a certain number of them in a certain time limit, and pass the review, and there would be a big thing about, "so and so has already gotten to the review and so and so did it today." I never got the review, and there was this song about "Peggy will never take the review" made up about halfway through the school year.

Tracked Classes and Lack of Effort in School. Ten of the 12 high-ability students in this study had negative opinions about the tracking system formerly used in most of their schools and, in particular, their placement in lower level reading and math groups in the elementary school and low track classes in their high schools, despite their high IQ test scores and apparent ability in some areas. In some instances, their placement in low skills classes resulted in a lack of effort and in negative opinions about themselves. In Mike's words:

> I couldn't do certain things and the teachers were always hounding me, and also I kind of got it into my head that I wasn't that smart. Sort of, I don't know, I think I was kept down. Because I think I could have done a lot more, but they would always put me in low groups and things. I was never in the highest reading group or the spelling group.

Difficulty in Reading and Writing. The specific nature of the participants' learning disability, in every case in this study, related in some way to verbal reading or written skills which they perceived to have had a detrimental effect on every aspect of their schooling. All of the participants mentioned problems with reading and spelling. Diane explained:

> I have a problem with lots of reading. That's always gonna be a problem. I don't have trouble reading, I mean I can read through stuff. It's just running through pages. I mean I can read. I can sit there and read 2 pages or 3 pages and realize that I had no concept of what I put my eyes over in the last 3 or 4 pages so I have to start over. I can do the same pages a long time before I understand what's happening. I can read through math texts, complicated math texts, just as quick as I could read a cheap novel or something. It's just the process of going through the words.

Variability of Special Education (Learning Disability) Programs. All participants involved in school programs for students with learning disabilities indicated a high degree of variation in the quality of their special education/learning disability program. The reasons hypothesized for the differences in quality were numerous, including different teachers each year, no clear program goals, and a lack of a coherent program. Most of the respondents who participated in a special program repeatedly described pictures of scattered, unclear, and disorganized activities. It should be noted that some of these students participated in new programs begun only a few years after the passage of P. L. 94-142. In some cases the student was placed into a program with many students perceived to have more serious problems than did the participants in the study. It was difficult for many of the participants to describe what they did in their elementary or high school learning disability program, as shown in this representative comment:

> Ah hum, I was I guess mainstreamed. I was put in a regular classroom with "normal students" and they would take me out for an hour every day or something, and I would go to a learning specialist or resource teacher, and then go over and do games and stuff like that.

Several of the students were also frustrated because the instructional level in the learning program or resource room seemed to be geared to lower-ability students and so much was repeated year after year. They indicated that a belief seemed to be present on the parts of both their classroom teachers and their learning disability specialists that if a student had a learning disability, they needed remediation and repeated practice on a skill. Martin discussed the repetition he found in the program as well as the number of other students who were slower than he was at learning various skills:

> Those kids were learning disabled—you could see it. [In explaining why he was different.] You could see it in their reading. You could see it in their understanding. You could see it in their spelling and all this, you know and just their, [*sic*] and myself. I just sat back. I could almost teach them you know, like I could teach them how to write, or teach them what to do, or these kind of things.

Difficulty in Reconciling High Abilities and Learning Disabilities. Most of the participants in this study had difficulty reconciling their high ability with their learning disability. Many were perplexed about how their advanced abilities such as mathematical talents or high verbal skills and their learning disability interacted. Several of the participants read at a level years below their chronological age despite their advanced use of spoken language. Some still believed they were "dumb" because of all of the negative comments made to them throughout their years in school. For example, Evan explained that many of his teachers did not think that he was smart. But when asked if he knew he was smart, Evan replied: "Yeah, I always thought I was." Diane eloquently described how she often felt as if she were two different people in the same body: one who was competent and bright who was inside, and another who blocked the smart person inside from communicating. The majority of the participants were ambivalent about their ability level because of their learning disability. Peggy explains:

> It [my learning disability] did definitely teach me that, and it taught me a lot of lessons in looking beyond the surface in people. I was very frustrated that all my friends, who I know I was as smart as, were in honors classes and I wasn't. I had lots of people that I was friends with that [*sic*] weren't as smart as me, and you just know that [*sic*] would say you're not always on honor role. But you're smart. You are not in honors level classes, but you are smart.

Integration of Personal Traits

The second core category that emerged in this study involved the ways in which the participants integrated their experiences with their environment, their personal strengths, and various learned strategies they needed to succeed.

Compensation Strategies, Learning Strategies, and Executive Functions. Participants in this study employed multiple compensation strategies to succeed in academic settings. All participants attributed their successes in these environments to their ability to use compensation and learning strategies. Compensation strategies included (a) use of computers, (b) word processors, (c) books on tape, and (d) self-advocacy. Learning strategies included but were not limited to (a) methods of learning to study, (b) note taking, and (c) identifying key points. Executive functions included (a) planning techniques such as time management, (b) metacognition, and (c) setting work priorities.

While many of the students mentioned multiple learning and compensation strategies, it is clear that each selected the strategies that worked best for him or her. For each participant, an individual system defined by Denckla (1989) as executive function was developed which enabled him or her to succeed using a combination of compensation and learning strategies. For some participants, this system included several strategies, such as organizing time to find the large blocks needed to complete their reading, analyzing difficulties to be able to overcome them, and walking or driving someplace several times to make certain that they knew the correct route.

Parental Support. Another area reported by every participant in this study was the pervasive presence of parental support. The mothers of the participants always gave support, and in about half of the cases the father either provided visible help by being on the sidelines or provided financial assistance. However, some fathers were totally nonsupportive. The mothers of these students

were their primary advocates and demonstrated consistent support in specific ways. These mothers monitored homework, told their children they were smart, selected computers, scheduled and attended teacher conferences, argued with school personnel about class placement and the need for learning disability services, sought information about learning disabilities, took their children for outside-of-school testing, sent them to special camps or private schools, read and checked their papers, and provided constant encouragement and love.

Participation in a University Learning Disability Program (UPLD). All of the participants selected in this study because of their participation in the UPLD were extremely positive about the effects of their participation in this program. Consistently, they mentioned the study strategies they learned, the support system that was available, and all of the help they received. Participants were also very positive about the continuity in having the same program director. They were uniformly complimentary about their director and her contribution to their successes. Joe summarized the sentiments explained by several participants in the following way, "It's really nice to have someone up there to bat for you. If I have a problem, it's good to know that I have her out there to handle the problem."

Self-Perceived Strength and Future Aspirations. The majority of the participants believe their capacity for hard work is their greatest asset, and the data indicate that the constructive adaptation or interpretation of their negative school experiences caused this work ethic to emerge. Each of these students learned how to work hard because of his or her learning disability, as is clear in this representative comment from Peggy: "I worked very hard. I would do hours of homework every night, but I am glad I learned how to do homework in high school, and so now I know how to do it here in college."

DISCUSSION

It is clear from the data collected in this study that these high-ability students with learning disabilities had negative experiences in school. It is also apparent that some students in this population succeeded in an academic setting despite these negative experiences. The major findings in this study incorporate the results derived from the core categories and the responses to the research questions.

The Combination of the Learning Disability and the Student's Giftedness

Many of the negative experiences in school revealed by the participants in this study were related in some way to the combination of their giftedness and their learning disability. It was the *combination* of their abilities and disabilities that caused the participants in this study either to be identified as having a learning disability later in their academic careers, or hampered their identification as having a learning disability in the years that services might have been provided to them during elementary and secondary school. It was also the combination of their abilities and their disabilities that caused them to be negatively perceived by their teachers and in some cases, their parents.

Unfortunately, the abilities of these students were clearly reflected in areas other than those which are reinforced and valued in school. Hence, their specific talents in verbal areas, math computation, and in the creative tasks at which many of these students excelled caused their teachers and parents to believe that their relatively poor school performance was due to laziness or inattention. In the schools that these students attended, literacy skills seemed to be emphasized often to the exclusion of most of the other talent areas at which these students excelled. This attention to reading and writing skills caused many of these students to have doubts and confusion about their own abilities and to question why they could not do the things that many of their peers could accomplish with seemingly little effort. Accordingly, it was not just the presence of a learning disability that affected school academic success; rather, it was the combination of giftedness and the learning disability that created many negative school experiences for this population.

The Relationship Between the Particular Type of Learning Disability and the Student's Gifts and Talents

The participants in this study resolved the conflict between their abilities and their disabilities in one of three ways. First, some participants struggled to gain the compensation strategies needed to directly address their learning disability and become successful in an area that may have initially appeared difficult if not impossible. This was, in large part, due to their participation in the UPLD which enabled their talents to emerge as they used strategies to overcome or at least compensate for their learning disability. Evan, for example, became a political science major despite a learning disability that hindered his skills in writing and reading.

Second, a smaller number of participants selected an academic direction in which they had strengths *and* which was not dependent upon the acquisition of compensation strategies or the mastery of an academic discipline that was affected by their specific learning disability. It is clear that this was only possible because these students were in college and could select a major area in which their specific talent could emerge. For example, Peggy's musical talents caused her to pursue a major in voice, thus enabling her to avoid the continued struggle to compensate for her numerous learning difficulties in academic areas. These options are not available to an elementary or secondary student who has either no choices or extremely limited academic choices in school.

Third, the majority of participants in this study combined the two options mentioned above as they attempted to both compensate for their learning disability and also select a major area of concentration in which their specific learning disability did not affect academic performance. Colin pursued a major in electrical/systems engineering thereby enabling him to focus on his strengths. He had to learn compensation strategies in order to be successful, but he did not have to use them to the extent he would have had he majored in an area that required him to primarily use reading and writing skills.

The Negative Climate That Existed in Elementary and Secondary Schools for Most Participants

Most participants in this study encountered an atmosphere in school in which they did not have positive experiences. The data collected from participants, parents, and numerous school records indicate the schools that these students attended and the teachers with whom they interacted were not often helpful in the development of their academic success. The negative experiences of these participants often caused problems that had to be addressed through counseling at a later time. One might hypothesize that some of these students achieved in spite of their elementary and secondary school experiences. There were, however, educators who had a positive impact for most of the participants in this study, and some of these persons (counselors, specialists for students with learning disabilities, or teachers) had a positive and lasting impact. It must be noted, however, that these educators were the exception rather than the norm.

The Acquisition of Compensation Strategies and Study Skills in College Through a Program for Students with Learning Disabilities

The majority of the participants in this study believe that they learned most of their compensation and learning strategies in college despite their participation in a program for students with learning disabilities at some point during elementary or secondary school. Unfortunately, these programs, according to the perceptions of the students in this study, often focused on remediation of content or the opportunity to do homework or catch up on work missed in class instead of teaching the compensation strategies necessary for independent learning and self-reliance. Their participation in the UPLD provided the first opportunity that participants had for training in compensation and learning strategies. This program was essential for the participants in this study.

Special Talents Such as Spatial Skills or Intense Interests

All of the participants in this study had special talents or interests that were usually manifested in out-of-school or within-school extracurricular activities and that enabled them to ameliorate their negative school experiences. These talents and interests were recognized and often nurtured by parents and seemed to contribute to the positive sense of self eventually developed by some of the participants in this study despite their negative experiences in school. Many of these students excelled in athletics or sports; others had hobbies or intense interests outside of school. These talents and interests often enabled the participants of this study to put their negative school experiences in a more appropriate perspective. Some reasoned that if they were so good at something, they did have talent, and perhaps they just had to work harder to be better at their academic work.

It must be acknowledged that without parental support, the ability to be able to pursue the sports, hobbies, or extracurricular activities would have been lessened. Many of the parents of participants in this study actively sought out opportunities for their children to excel in order to compensate for their poor performance in school. This appears to be a reciprocal relationship in some ways. A child does poorly in school, and his or her parents, sensing that their child is bright and talented, look for alternative ways in which the talent can be manifested. This, in turn, causes the parent to invest time and capital into looking for ways to nurture talents and once this occurs, the child begins to feel better about his or her talents and to think that achievement might be possible in other areas, such as school performance. The development of these talents often provided these students with the belief that they could excel in something if they worked hard at it, and if they could do something well, perhaps they could do better in school if they applied themselves and worked harder at it. This belief in themselves often caused them to work much harder at their academic work. Ironically, the hard work was necessary because of their learning disabilities, but it was the acquisition of this work ethic that caused many of these students to work harder and become extremely successful in college. This "cycle of reciprocal talents" existed for participants in this study. Once they learned that they could excel in another area, such as athletics in or out of school, mountain biking, creating miniatures or vocal talents out of school, they often began to believe they could achieve in school; and eventually, most did.

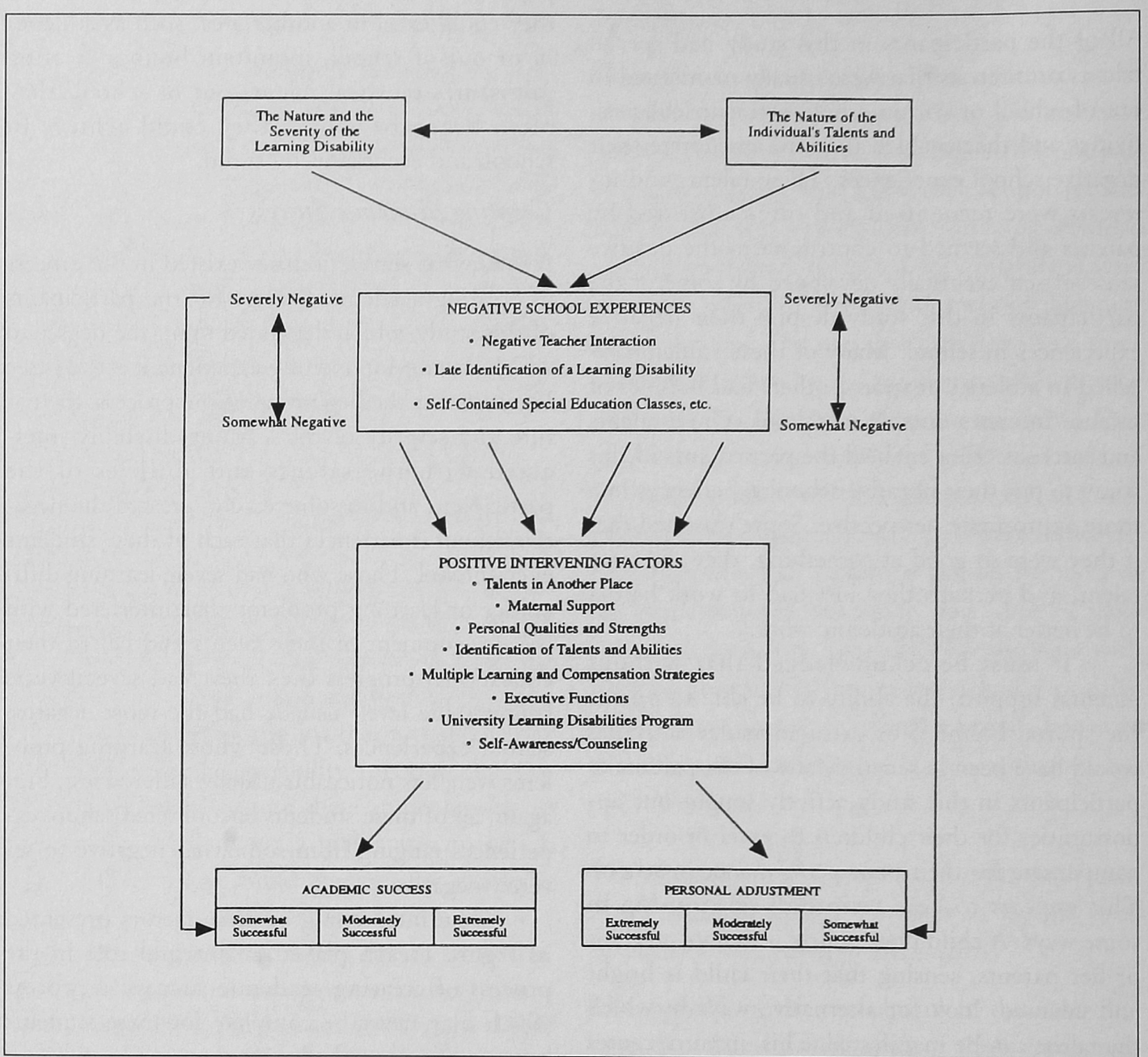
Creating Academic Success

A somewhat similar journey existed in the process of creating academic success for the participants of this study, which depended upon the degree to which certain intervening experiences existed (see Figure 1). At the beginning of the process, the nature and severity of the learning disability interacted with the talents and abilities of the participant, and to some extent, created the negative school experiences that each of these students encountered. Those who had severe learning difficulties or learning problems that interfered with the development of their talents and halted their educational progress (i.e., they read several years below grade level) usually had the most negative school experiences. Those whose learning problems were less noticeable usually suffered less, but, again, all of these students encountered school experiences ranging from somewhat negative to severely negative.

The intervening positive factors presented in Figure 1 each played an integral role in the process of creating academic success, a process which may never be complete for these students because of future challenges that will be encountered. These intervening experiences include

- Talents exhibited in another place often provided these students with the belief in their ability to succeed in something that later resulted in achieving some degree of academic success.
- The continued presence of maternal support as one participant eloquently summarized: "My mother was always right beside me."
- The personal qualities that participants exhibited and parents indicated were often created from adversity including: determination, perseverance, ethics of hard work, and sheer stubbornness. Occasionally, these strengths included those directly caused by painful experiences; a desire to succeed may have resulted

FIGURE 1
Pathways to Academic Success



from the need to show those who erected roadblocks that *one could succeed.* In other words, these students may have attempted to conquer the system that had created obstacles for them.

- The creation of a personal plan for academic success that was slightly different for each participant, but always included common elements including multiple learning strategies, the use of carefully selected and individually appropriate compensation strategies, and the integration of certain executive functions that guided decisions made and directions both taken and not taken.
- The presence of a university or college program for students with learning disabilities was an integral part of the academic success experienced by the persons in this study. All who participated were extremely favorable about the presence of this program.
- The self-awareness and knowledge that some participants gained about how to create the process of academic success was achieved through their individual experiences and with the help of parents, educators, and peers. However, for some of these students, other help was essential in the form of counselors, psychologists, and psychiatrists who were necessary to address negative memories, the fears

and insecurities experienced in their school experiences and early lives. The need for this professional help was usually most clearly felt by those who had experienced the most negative school experiences.

The process of molding these diverse experiences into the creation of academic success was slightly different for each person in the study. All 12 came from different types of families, although similarities existed. All were white, and many came from above average socioeconomic backgrounds. One wonders what may happen to very bright students with learning disabilities who come from culturally different backgrounds or economically disadvantaged environments. Each person in this study had a mother who devoted herself to using different strategies to help her child succeed. This assistance was given regardless of whether the mother worked outside of the home and regardless of how many other children were in the family. One may ask, therefore, what happens to children who do not have a similar source of support?

IMPLICATIONS FOR PRACTICE

If discrepancies occur between verbal and written work, or if a student with advanced abilities has obvious problems in certain areas in school, a teacher or parent should consider the existence of learning disabilities. Students with learning disabilities who are also academically talented or who possess advanced abilities in one or more academic areas often are misunderstood by their teachers or their parents. Some of these students are extremely verbal but may not be able to demonstrate their talents in their written work. Teachers may believe that these students are lazy or simply are not using appropriate care or attention to detail. Some of these students may only manifest their learning disabilities in upper elementary, middle, or high school, after having been excellent students in primary or early elementary grades. It would be helpful to provide professional development information about talented students with learning disabilities.

Parents of children who appear to be bright and verbal in their early grades or who display obvious discrepancies between verbal abilities and written work, or between out-of-school talents and what they can accomplish in school may want to consider whether a learning disability is masking their child's performance in school. Students who are both gifted and learning disabled may need different types of programs from those provided by the learning disabilities specialist in their schools.

Special education professionals should help academically talented students with learning disabilities learn how to learn and how to develop a personal system that enables them to achieve. Remediation or additional practice may not help many of these students to realize their potential, since what is really needed is the acquisition of compensation strategies. The components of a university program for students with learning disabilities that enabled participants in this study to acquire compensation strategies and become their own advocates should be applied to many elementary and secondary school settings.

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ABOUT THE AUTHORS

SALLY M. REIS (CEC CT Federation), Associate Professor, Department of Educational Psychology, University of Connecticut, Storrs. **TERRY W. NEU** (CEC #6), Assistant Professor, Sacred Heart University, Fairfield, Connecticut. **JOAN M. McGUIRE** (CEC #6), Associate Professor, Department of Educational Psychology, University of Connecticut, Storrs.

Address correspondence to Sally M. Reis, University of Connecticut, Department of Educational Psychology, 362 Fairfield Road, U-7, Storrs, CT 06269-2007 (E-mail:reis@uconnvm.edu).

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